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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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11/17/2003

Mark M. Josephsen

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EXAMINER

ROBINSON BOYCE, AKIBA K

ART UNIT

PAPER NUMBER

3628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/715,715

Applicant(s)

JOSEPHSEN ET AL.

Examiner

Akiba K. Robinson-Boyce

Art Unit

3628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/17/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Due to communications filed 11/17/03, the following is a non-final first office action. Claims 1-31 are pending in this application and have been examined on the merits. Claims 1-31 are rejected as follows.

Claim Objections

2. Claim 23 is objected to because of the following informalities: Misspelling: In line 4 of the claim "cost f the media" should be replaced with "cost of the media".
Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 4-8, 11, 14, 18, 22, 23, 25-27 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Allen et al (US 2004/0012644 A1).

As per claims 1, 23, Allen et al discloses:

recording a type of media actually used, ([0069], selecting print media type, w/ Fig. 5, media choice entered into printer);

determining an amount of pigment used on the sheet of media, ([0020] pigment included in account information for cost usage)), and

calculating the cost of printing to the media by adding a cost of the sheet of media actually used and a cost of the pigment used on the sheet of media/calculate a cost of the pigment used on a cost of the media, ([0020], cost reporting applied to type of print media/pigment).

As per claim 4, Allen et al discloses:

Further comprising allocating the cost of printing to the media to an entity, ([0050], printer cost and usage reported via web server, display, etc.).

As per claim 5, Allen et al discloses:

identifying an entity to which the costs will be allocated, (inherent with [0061] where it shows that the printer is typically connected to a personal computer, and a user must identify him/herself through use of a user id/password to log on to a personal computer in order to use the printing system);

recording a type of media actually used for the entity, ([0069], selecting print media type, w/ Fig. 5, media choice entered into printer);

recording a number of sheets of the type of media actually used for the entity;
determining an amount of pigment used on each of the sheets of media, ([0020] pigment included in account information for cost usage));

calculating a cost of the media actually used and a cost of the pigment used on all the sheets of media used for the entity, ([0020], cost reporting applied to type of print media/pigment); and

allocating the cost of the media actually used and the cost of the pigment used to the entity, ([0050], printer cost and usage reported via web server, display, etc.).

As per claims 6, 7, Allen discloses:

further comprising storing the entity identification, the type of media, the number of sheets of media of a particular type and the amount of pigment used/further comprising storing the entity identification, the type of media, the number of sheets of media of a particular type and the amount of pigment used for each of the number of sheets of media in a print job, ([0068], shows the storage and display of printer usage).

As per claim 8, Allen discloses:

determining the number of dots needed to form an image on a sheet, [0039], lines 6-8, counting dots); and

multiplying the number of dots on the sheet by an average pigment cost per dot, ([0039], lines 8-11, calculating value).

As per claim 11, Allen discloses:

determining the number of dots of a color used to form a color pane, the color panes overlayed with one another to form an image, ([0048], 87% black, 3% cyan, etc.); and

multiplying the number of dots in the color pane by an average pigment cost per dot to allocate the cost of a pigment for a color associated with the image, ([0039], lines 8-11, calculating value).

As per claims 14, 18, 22, Allen discloses:

separating the print job into a first color pane and a second color pane, ([0048], black represents first, and cyan represent second); and

determining a number of dots in a first color pane/determine a number of dots in a first pane of a page of a print job, ([0048], 87% black represents first); and

multiplying the number of dots in the first color pane/first pane by an average pigment cost per dot to allocate/determine the cost of a pigment for a first color associated with a page/associated with a first pane of a page, [0039], lines 8-11, calculating value);

determining the number of dots in a second color pane..., ([0048], 3% cyan represents second); and

multiplying the number of dots in the second color pane by an average pigment cost per dot of a second color to allocate the cost of a pigment for the second color associated with a page/multiply the number of dots in the first pane by an average pigment cost..., ([0039], lines 8-11, calculating value).

As per claims 25, Allen discloses:

determine a number of dots in a second pane..., ([0048], 3% cyan represents second)

multiply the number of dots in the second pane by an average pigment cost per

dot to determine a cost of a pigment associated with the second pane of the page,
([0039], lines 8-11, calculating value);

record a type of media actually used, ([0069], selecting print media type, w/ Fig.
5, media choice entered into printer);

determine a cost of the media actually used, ([0020] pigment included in account
information for cost usage)];

and calculate a cost of the pigment used and a cost of the media, ([0020], cost
reporting applied to type of print media/pigment).

As per claims 26, Allen discloses:

a data storage system for storing information regarding a cost per sheet of media
associated with the printing device, and a cost of pigment associated with the printing
device, ([0069], selecting print media type, w/ Fig. 5, media choice entered into printer);
and

a data a processing system coupled to said data storage system and operative to
receive a print job and to record an actual number of sheets of media used to execute a
print job and to record an amount of pigment used on each sheet of media for execution
of the print job, the data processing system multiplying the actual number of sheets of
media used by the cost per sheet of media and adding the cost of pigment for each of
the pages to determine a cost associated with the print job, the data processing system
further operative to allocate the cost of the print job to an entity, ([0020], cost reporting
applied to type of print media/pigment).

As per claims 27, Allen discloses:

wherein said data storage system stores the cost of the pigment as a cost per dot of pigment, and wherein the data processing system records a number of dots per page and multiplies the number of dots on a particular page by the cost per dot to determine the cost of pigment per page, ([0068], shows the storage and display of printer usage, w/([0039], lines 8-11, calculating value).

As per claims 29, Allen discloses:

wherein the data storage system also stores an amortized cost for wear on the printing device based on the number of sheets of media anticipated to be printed over the life of the printing device, the amortized cost on a per sheet of media basis, the data processing system adding the amortized cost per sheet of media to the cost of the sheets of media and the cost of the pigment, ([0018], average life).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 17, 24, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al (US 2004/0012644 A1), and further in view of Joel et al (JP 11143669 A).

As per claims 2, 3, 17, 24, Allen et al does not specifically disclose the following, but does disclose a system for calculating usage and cost of print jobs as shown in ([0020].

However, Fox et al discloses:

determining an amortized cost related to the printing device per sheet of media; and adding the amortized cost to the cost of the sheet of media and the cost of the pigment/ determining an amortized cost related to an operation of the printing device; and adding the amortized cost to the cost of the sheet of media and the cost of the pigment/ further comprising adding a cost of amortization of the printing device to the cost of the media and the cost of the pigment/amortize the cost of the printing device on a per operation basis; and add the amortized cost to the cot of the pigment and the cot of the media, (see NOVELTY/ADVANTAGE, shows a centralized accounting system for specific printing jobs where the amortization of print center costs are rationalized). Fox et al discloses this limitation in analogous art for the purpose of showing that when specific print jobs are requested and processed, the system will use the centralized accounting system to amortize the print center costs.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to determine amortized costs related to the printing device per sheet of media with the motivation of showing that payments for print center costs can be made by micro-payments.

As per claim 31, Allen et al discloses:

providing a per page cost of a first media, a per page cost of a second media, a cost of pigment, and a per page amortized cost of a printing device/ the printing device determining the cost associated with each page based on the actual pigment used and the use of either a first media or the second media, ([0020], cost reporting applied to type of print media/pigment); and

requesting fulfillment of a print job and, after fulfilling at least a portion of the print job, ([0056], price for printer cost updated each time a print job is processed);

Allen et al does not specifically disclose the following, but does disclose a system for calculating usage and cost of print jobs as shown in ([0020].

However, Fox et al discloses:

the printing device determining the cost associated with...a per page amortized cost for using the printing device, (see NOVELTY/ADVANTAGE, shows a centralized accounting system for specific printing jobs where the amortization of print center costs are rationalized). Fox et al discloses this limitation in analogous art for the purpose of showing that when specific print jobs are requested and processed, the system will use the centralized accounting system to amortize the print center costs.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to determine the costs of a print job associated with each page bases on per page amortized costs with the motivation of showing that payments for print center costs can be made by micro-payments.

7. Claims 9, 10, 12, 13, 19, 20, 21, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al (US 2004/0012644 A1).

As per claims 9, 10, 12, 13, 19, 20, 28, Allen et al does not specifically disclose the following, but does disclose counting dots in [0039]:

Wherein the average pigment cost to differ in response to a density of each dot on the sheet/wherein the average pigment cost of the first pigment increases as the density of the dots increases/wherein the cost of pigment varies as a function of the density of dots on a page varies.

However, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for the average pigment cost to differ in response to a density of each dot on the sheet or for the average pigment cost of the first pigment to increase as the density of the dots increases since density is directly proportional to mass, which derives from the equation $\text{Density} = \text{Mass} / \text{Volume}$.

As per claims 21, Allen does not specifically disclose the following, but does disclose counting dots in [0039], and also shows the incorporation of more than one color pane in [0048]:

wherein the average pigment cost of the first pigment varies in response to the

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density of dots on the first color pane, and the average pigment cost of the second pigment varies in response to the density of dots on the second color pane.

However, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention for the average pigment cost of the first pigment varies in response to the density of dots on the first color pane, and the average pigment cost of the second pigment varies in response to the density of dots on the second color pane since density is directly proportional to mass, which derives from the equation $\text{Density} = \text{Mass} / \text{Volume}$.

8. Claims 15, 16, 30, are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al (US 2004/0012644 A1), and further in view of Lacheze et al (US 5,956,698).

As per claims 15, 30, Allen et al does not specifically disclose the following, but does disclose cost reporting applied to type of print media/pigment as shown in [0020].

However, Lacheze et al discloses:

wherein identifying an entity to which the costs will be allocated further comprises entering a billing code associated with the entity/wherein allocating the cost of the print job to an entity includes storing a billing code in the data storage system... (col. 1, lines 52-58, shows example where billing meters are hardcoded for selection by user).

Lacheze et al discloses this limitation in an analogous art for the purpose of showing that a user can enter in parameters that will identify billing for a particular print job.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to enter in a billing code associated with the entity with the motivation of providing a way to bill a particular user for a print job.

As per claim 16, Allen et al does not specifically disclose the following, but does disclose cost reporting applied to type of print media/pigment as shown in [0020].

However, Lacheze et al discloses:

wherein identifying an entity to which the costs will be allocated further comprises entering a billing code associated with the entity and a code associated with a print job, (Col. 10, lines 61-66, job identifier). Lacheze et al discloses this limitation in an analogous art for the purpose of showing that a user can enter in parameters that will identify billing for a particular print job.

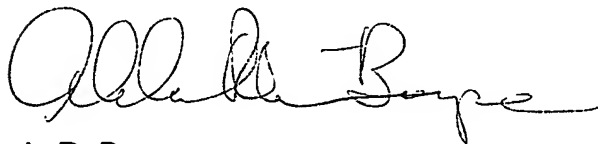
It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to enter in a billing code associated with the entity and a code associated with a print job with the motivation of providing a way to bill a particular user for a print job.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akiba K Robinson-Boyce whose telephone number is 571-272-6734. The examiner can normally be reached on Monday-Friday 9am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7238 [After final communications, labeled "Box AF"], 703-746-7239 [Official Communications], and 703-746-7150 [Informal/Draft Communications, labeled "PROPOSED" or "DRAFT"].

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

A handwritten signature in cursive script, appearing to read 'Akiba K Robinson-Boyce'.

A. R. B.
March 23, 2007